UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,853	01/07/2002	David G. Way	064731.0257	5513

5073 7590 05/11/2006

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER	
CURS, NATHAN M	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No. 10/041,853	Applicant(s) WAY, DAVID G.
	Examiner Nathan Curs	Art Unit 2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-9, 11, 13-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colbourne et al. (US Patent No. 6654564) in view of Delavaux et al. (US Patent No. 5608562), and further in view of Keys (US Patent No. 6456773).

Regarding claim 1, Colbourne et al. disclose a dispersion compensation system comprising: a dispersion compensation module (DCM) operable to receive optical input and provide optical output having a negative dispersion relative to the optical input (fig. 13b, element R3 and fig. 19, element 192) and a dispersion enhancement module (DEM) adapted to be optically coupled between the DCM and an optical fiber having a positive dispersion (fig. 13b, element R1 and fig. 19, element 191), the DEM operable to selectively increase the positive dispersion provided by the optical fiber by a selected one of a plurality of amounts and to provide the optical input to the DCM, the optical input having a positive dispersion substantially equal to the positive dispersion of the optical fiber plus the selected one of the amounts of dispersion in the DEM (col. 1, lines 7-9 and lines 18-27, and col. 4, lines 31-61 and col. 9, line 64 to col. 10, line 61). Colbourne et al. do not disclose the dispersion enhancement module comprising a plurality of dispersion enhancement fibers. Delavaux et al. disclose a variable dispersion compensation device using switched DCFs and fixed DCFs over various

compensation values, the switched DCFs controlled by a controller (figs. 5 and 9 and col. 3, line 43 to col. 4, line 10 and col. 4, lines 32-63). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the variable dispersion compensation devices of Delavaux et al. for the variable compensators of Colbourne et al. since dispersion compensation fiber is conventional and since the etalons of Colbourne require dimensions and free spectral range that are dependent on channel spacing of a multi-wavelength signal. Keys discloses tailoring dispersion compensating modules for specific compensation values by using various segments of DCF, including positive and negative dispersion segments (col. 1, line 57 to col. 2, line 11). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a set of positive dispersion segments and a set of negative dispersion segments in each of the DCF-based dispersion compensation devices of the combination of Colbourne et al. and Delavaux et al., in order to be able to use the same dispersion compensation device for spans of varying length and fiber types, by connecting the appropriate segments of DCF within the device (negative, positive, or both), as taught by Keys.

Regarding claim 2, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, wherein a magnitude of the positive dispersion of the optical input is substantially equal to a magnitude of the negative dispersion of the DCM, such that the optical output has a dispersion near to zero (Colbourne et al.: col. 4, lines 31-61 and Keys: col. 1, line 57 to col. 2, line 11).

Regarding claim 3, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, wherein the DCM is designed to compensate for dispersion along a fixed length of an optical fiber type, the optical fiber type having a positive dispersion per unit length and wherein, if the optical fiber coupled to the DEM has an actual length less than the fixed length, the selected amount of dispersion in the DEM

increases dispersion by an amount substantially equal to dispersion resulting from a length of the optical fiber type equal to the difference of the fixed length and the actual length (Colbourne et al.: col. 1, lines 7-9 and lines 18-27 and col. 4, lines 31-61 and Keys: col. 1, line 57 to col. 2, line 11).

Regarding claim 4, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, and discloses two amplifiers, where the DCM is between the two amplifiers (Delavaux et al.: fig. 1 and col. 2, lines 53-64), but does not disclose the set of positive DCFs before the amplifier in front of the DCM. However, based on the pre-amp teaching of Devalaux et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to use a pre-amplifier before both a set of positive DCFs and a set of negative DCFs for the combination of Colbourne et al., Delavaux et al. and Keys since each DCF fiber set has a length of fiber that contributes loss to the signal. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention that the serial order of devices within the dispersion compensation device would be DEM then DCM as suggested by Colbourne et al.

Regarding claim 5, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, and disclose that the DCM comprises dispersion compensation fiber having a defined negative dispersion per unit length (Colbourne et al.: col. 9, lines 12-14 and Keys: col. 1, lines 32-67, where a DCF fiber segment with negative dispersion inherently has a definite negative dispersion per unit length).

Regarding claim 6, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, and discloses that the DEM comprises a plurality of dispersion enhancement fibers each having a defined positive dispersion per unit length, each of the dispersion enhancement fibers having a different length

(Delavaux et al.: col. 3, lines 43-56 and Keys: col. 1, lines 57-67, where a DCF fiber segment with positive dispersion inherently has a definite positive dispersion per unit length).

Regarding claim 7, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, wherein the DEM is operable to selectively couple one or more of the dispersion enhancement fibers together to form an optical path coupling the optical fiber to the DCM through the selected one or more of the dispersion enhancement fibers (Delavaux et al.: col. 3, lines 43-56 and Keys: col. 1, lines 57-67).

Regarding claim 8, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion compensation system of claim 1, wherein the DEM comprises a controller operable to: determine the negative dispersion of the DCM; determine the positive dispersion of the optical fiber; and determine the selected one of the amounts of dispersion in the DEM to provide the optical input having a positive dispersion substantially equal to an inverse of the negative dispersion of the DCM (Colbourne et al.: col. 9, line 64 to col. 10, line 61 and col. 11, lines 3-22 and Delavaux et al.: col. 3, lines 10-42).

Regarding claim 9, Colbourne et al. disclose a method for dispersion compensation comprising: providing an optical transport fiber coupling a first network element and a second network element, the transport fiber having a first positive dispersion (col. 1, lines 7-9 and lines 18-27); providing a dispersion enhancement module disposed between the transport fiber and the second network element (fig. 13b, element R1 and fig. 19, element 191); determining a negative dispersion of the second network element (col. 11, lines 3-22); and configuring the dispersion enhancement module to provide second positive dispersion, the sum of the first positive dispersion and the second positive dispersion substantially equal to the magnitude of the negative dispersion (col. 4, lines 31-61 and col. 9, line 64 to col. 10, line 61). Colbourne et al. do not disclose that routing signals from the transport fiber through the dispersion

enhancement module comprises routing signals through one or more dispersion enhancement fibers. Delavaux et al. disclose a variable dispersion compensation device using switched DCFs and fixed DCFs over various compensation values, the switched DCFs controlled by a controller (figs. 5 and 9 and col. 3, line 43 to col. 4, line 10 and col. 4, lines 32-63). Keys discloses tailoring dispersion compensating modules for specific compensation values by using various segments of DCF, including positive and negative dispersion segments (col. 1, line 57 to col. 2, line 11). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Delavaux et al. and Keys with Colbourne et al. as described above for claim 1.

Regarding claim 11, the combination of Colbourne et al., Delavaux et al. and Keys discloses the method claim 9, and that the negative dispersion in the second network element results from dispersion compensation fiber having a defined negative dispersion per unit length (Colbourne et al.: col. 9, lines 12-14 and Keys: col. 1, lines 32-67, where a DCF fiber segment with negative dispersion inherently has a definite negative dispersion per unit length).

Regarding claim 13, Colbourne et al. disclose a dispersion compensation system comprising: a dispersion compensation device operable to provide optical output having a negative dispersion (fig. 13b, element R3 and fig. 19, element 192) and a dispersion enhancement module (DEM) (fig. 13b, element R1 and fig. 19, element 191) adapted to be optically coupled to an optical fiber having a positive dispersion and to receive an optical input from the optical fiber, the DEM operable to selectively increase the positive dispersion provided by the optical fiber by a selected one of a plurality of amounts, the optical input having a positive dispersion substantially equal to the positive dispersion of the optical fiber plus the selected one of the amounts of dispersion in the DEM (col. 1, lines 7-9 and lines 18-27, and col. 4, lines 31-61 and col. 9, line 64 to col. 10, line 61). Colbourne et al. do not disclose a first optical amplifier

and a second optical amplifier and negative dispersion compensation fiber optically coupled between the first optical amplifier and the second optical amplifier, and do not disclose the dispersion enhancement module comprising a plurality of dispersion enhancement fibers. Delavaux et al. disclose using pre and post amplifiers with a DCF-based variable dispersion compensation device (fig. 1 and col. 2, lines 53-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the variable dispersion compensation devices of Delavaux et al. for the variable compensators of Colbourne et al. since dispersion compensation fiber is conventional and since the etalons of Colbourne require dimensions and free spectral range that are dependent on channel spacing of a multi-wavelength signal, and it would have been obvious to one of ordinary skill in the art at the time of the invention to use a pre-amplifier and post-amplifier when using DCF since each DCF fiber set has a length of fiber that contributes loss to the signal. Keys discloses tailoring dispersion compensating modules for specific compensation values by using various segments of DCF, including positive and negative dispersion segments (col. 1, line 57 to col. 2, line 11). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a set of positive dispersion segments and a set of negative dispersion segments in each of the DCF-based dispersion compensation devices of the combination of Colbourne et al. and Delavaux et al., in order to be able to use the same dispersion compensation device for spans of varying length and fiber types, by connecting the appropriate segments of DCF within the device (negative, positive, or both), as taught by Keys. Based on the pre-amp teaching of Devalaux et al., it would have been obvious to one of ordinary skill in the art at the time of the invention to use a pre-amplifier before each set of DCFs for the combination of Colbourne et al., Delavaux et al. and Keys since each DCF fiber set has a length of fiber that contributes loss to the signal. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention that the serial order of

devices within the dispersion compensation device would be DEM then DCM as suggested by Colbourne et al.

Regarding claim 14, the combination of Colbourne et al., Delavaux et al. and Keys disclose the dispersion compensation system of claim 13, wherein the DEM comprises a plurality of dispersion enhancement fibers each having a defined positive dispersion per unit length, each of the dispersion enhancement fibers having a different length (Delavaux et al.: col. 3, lines 43-56 and Keys: col. 1, lines 57-67, where a DCF fiber segment with positive dispersion inherently has a definite positive dispersion per unit length).

Regarding claim 15, the combination of Colbourne et al., Delavaux et al. and Keys disclose the dispersion compensation system of claim 14, wherein the DEM is operable to selectively couple one or more of the dispersion enhancement fibers together to form an optical path coupling the optical fiber to the DCM through the selected one or more of the dispersion enhancement fibers (Delavaux et al.: col. 3, lines 43-56 and Keys: col. 1, lines 57-67).

Regarding claim 16, Colbourne et al. disclose a dispersion enhancement module (fig. 13b, element R1 and fig. 19, element 191) adapted to be optically coupled to a dispersion compensation module having a fixed negative dispersion (fig. 13b, element R3 and fig. 19, element 192 and col. 4, lines 53-61), the dispersion enhancement module comprising: an optical input adapted to couple to an optical transport fiber and an optical output adapted to couple to the dispersion compensation module, wherein optical signals from the optical output have a positive dispersion substantially equal to a sum of positive dispersion of the transport fiber and positive dispersion of the optical path (col. 1, lines 7-9 and lines 18-27, and col. 4, lines 31-61 and col. 9, line 64 to col. 10, line 61). Colbourne et al. do not disclose the dispersion enhancement module comprising a plurality of switched dispersion enhancement fibers forming a path. Delavaux et al. disclose a variable dispersion compensation device using switched

DCFs and fixed DCFs over various compensation values, forming a path, the switched DCFs controlled by a controller (figs. 5 and 9 and col. 3, line 43 to col. 4, line 10 and col. 4, lines 32-63). Keys discloses tailoring dispersion compensating modules for specific compensation values by using various segments of DCF, including positive and negative dispersion segments (col. 1, line 57 to col. 2, line 11). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Delavaux et al. and Keys with Colbourne et al. as described above for claim 1.

Regarding claim 17, the combination of Colbourne et al., Delavaux et al. and Keys disclose the dispersion enhancement module of claim 16, wherein a magnitude of the positive dispersion of the optical signals is substantially equal to a magnitude of the negative dispersion of the dispersion compensation module (Colbourne et al.: col. 1, lines 7-9 and lines 18-27, and col. 4, lines 31-61 and col. 9, line 64 to col. 10, line 61 and Keys: col. 1, line 57 to col. 2, line 11).

Regarding claim 19, the combination of Colbourne et al., Delavaux et al. and Keys disclose the dispersion enhancement module of claim 16, further comprising a controller operable to: determine the negative dispersion of the dispersion compensation module, determine the positive dispersion of the optical transport fiber, and configure the switches such that a magnitude of the positive dispersion of the optical signals from the optical output is substantially equal to a magnitude of the negative dispersion of the dispersion compensation module (Colbourne et al.: col. 9, line 64 to col. 10, lines 61 and col. 11, lines 3-22 and Delavaux et al.: col. 3, lines 10-42).

Regarding claim 20, the combination of Colbourne et al., Delavaux et al. and Keys disclose the dispersion enhancement module of claim 16, wherein the switches are further operable to optically couple the optical input and the optical output such that the optical path

bypasses the dispersion enhancement fibers, as described above for claim 16 for the dispersion compensation device of the combination of Colbourne et al., Delavaux et al. and Keys, where the positive dispersion fibers will be bypassed in any case where positive dispersion is not needed to create the dispersion compensation value required for compensation of a signal received from a span.

3. Claims 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colbourne et al. (US Patent No. 6654564) in view of Delavaux et al. (US Patent No. 5608562), and further in view of Keys (US Patent No. 6456773) as applied to claims 1-9, 11, 13-17, 19 and 20 above, and further in view of Feinberg (US Patent Application Publication No. 2003/0031433).

Regarding claim 12, the combination of Colbourne et al., Delavaux et al. and Keys discloses the method of claim 9, and the controller determining the correct dispersion compensation adjustment (Colbourne et al.: col. 11, lines 3-22 and Delavaux et al.: col. 3, lines 10-42), but do not disclose detecting a switch from the transport fiber to a backup optical transport fiber, the backup transport fiber having a third positive dispersion; and reconfiguring the dispersion enhancement module to provide fourth positive dispersion, the sum of the third positive dispersion and the fourth positive dispersion substantially equal to the magnitude of the negative dispersion. Feinberg disclose a protected optical transmission system where different dispersion compensation values are used for each of the received working and protection signals (fig. 4, elements 420, 425 and 322 and paragraphs 0037 and 0041). It would have been obvious to one of ordinary skill in the art at the time of the invention that a protection switched optical input could be supplied to the dispersion compensation system of the combination of Colbourne et al., Delavaux et al. and Keys, and that the controller of the combination of

Colbourne et al., Delavaux et al. and Keys would detect a change in the needed amount of dispersion compensation if the incoming fiber signal was switched due to a protection switch, in order to provided the advantage of adding a protected input to the combination of Colbourne et al., Delavaux et al. and Keys without having to duplicate the dispersion compensation system since it would automatically adjust the dispersion compensation for either of the working or protect input signal.

Regarding claim 18, the combination of Colbourne et al., Delavaux et al. and Keys discloses the dispersion enhancement module of claim 16, and the controller determining the correct dispersion compensation adjustment (Colbourne et al.: col. 11, lines 3-22), but do not disclose a controller operable to: detect a switch from the optical transport fiber to a backup optical transport fiber; determine a difference in magnitudes of the negative dispersion of the dispersion compensation module and a positive dispersion of the backup optical transport fiber; and reconfigure the optical switches such that the optical path has a positive dispersion equal to the difference in the magnitudes. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Feinberg with the combination of Colbourne et al., Delavaux et al. and Keys as described above for claim 12.

Response to Arguments

4. Applicant's arguments filed 1 February 2006 have been fully considered but they are not persuasive.

Regarding claims 1-9, 1, 13-17, 19 and 20, the applicant states that the examiner agreed that Colbourne fails to teach or suggest **all** aspects of the claimed dispersion enhancement module, and then the applicant argues that Delavaux and Keys fail to teach or suggest any dispersion enhancement module as recited in claim 1. However, a failure of Delavaus and Keys

to teach or suggest the dispersion enhancement module recited in claim 1 **does not** mean that the combination as a whole fails to read on the claimed dispersion enhancement module. The examiner **did not** state that Colbourne fails to teach or suggest **any** aspects of the dispersion enhancement module. In fact, Colbourne does teach a dispersion enhancement module. Therefore, the argument that Delavaux and Keys fail to teach or suggest any dispersion enhancement module as recited in claim 1 is not persuasive because the rejection is based on the combination of references, including Colbourne's teaching of a dispersion enhancement module.

The applicant also argues that the combination of Colbourne, Delavaux and Keys is improper because there is no teaching, suggestion or motivation to combine or modify the teachings of the references either in the references themselves or in the knowledge available to one of ordinary skill in the art. The applicant then argues that the references teach away from a combination. These are two separate arguments. First, the argument that there is no teaching, suggestion or motivation to combine is not persuasive. The rejections above cite teachings of references and provide motivational reasoning statements for the combination. The applicant does not argue against these citations and reasoning statements; rather, the applicant argues there are no teachings, suggestions or motivations to combine. This is clearly false as it contradicts the actual content of the rejections. Second, the argument that the references teach away from a combination is not persuasive either. MPEP section 2145 states that a prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness; however, "the nature of the teaching is highly relevant and must be weighed in substance. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use". Therefore, Colbourne identifying one limitation of dispersion compensation fiber in col. 9, lines

15 and 16, that "dispersion compensation fibers cannot compensate for the wavelength dependence of dispersion" does not mean that Colbourne teaches away from the combination. In fact, Colbourne states in col. 9, lines 12-14, that "dispersion compensators such as dispersion compensation fiber can be used for providing fixed negative or positive dispersion for optical fibres". This explicit teaching of use of dispersion compensating fiber disqualifies Colbourne's identification of one limitation of DCF as a persuasive teaching away from a combination based on dispersion compensation fibers.

The applicant also argues that Delavaux and Keys teach away from combination with each other because they teach alternate techniques for accomplishing a similar end result, and one of ordinary skill in the art would not be motivated to pick and choose different aspects of these two alternate techniques, but rather would be inclined to select only one of the two. However, the combination is not even based on one of ordinary skill in the art being motivated to pick and choose different aspects of the techniques of Delavaux and Keys to achieve the similar end result. The combination is based on modifying the dispersion compensators of Colbourne based on a dispersion compensator teaching from Delavaux and another dispersion compensator teaching from Keys. The use of references is not limited to what is the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain. Therefore, the use of Delavaux and Keys is not limited by the specific techniques that Delavaux and Keys found necessary to achieve the "similar end result" they were concerned with; details of their dispersion compensator elements can be used as proper prior art teachings.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

6. Any inquiry concerning this communication from the examiner should be directed to N. Curs whose telephone number is (571) 272-3028. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached at (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (800) 786-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600